



# UNITED STATES PATENT AND TRADEMARK OFFICE

MN

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,288	06/30/2004	Kevin Scott Beyer	ARC920040017US1	4287
55589	7590	07/10/2007	EXAMINER	
FLEIT, KAIN, GIBBONS, GUTMAN, BONGINI & BIANCO P.L. 551 NW 77TH STREET SUITE 111 BOCA RATON, FL 33487			HUYNH, CONG LAC T	
		ART UNIT	PAPER NUMBER	
		2178		
		MAIL DATE	DELIVERY MODE	
		07/10/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/710,288	BEYER ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Cong-Lac Huynh	2178

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 26 April 2007.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-35 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

1. This action is responsive to communications: amendment filed 4/26/07 to the application filed on 6/30/04.
2. Claim 36 is canceled.
3. Claims 1-35 are pending in the case. Claims 1, 16, 26 and 31 are independent claims.
4. The objections of claims 8 and 25 have been withdrawn in view of the amendment.
5. The 112, second paragraph rejection of claims 32-35 has been withdrawn in view of the amendment.
6. The 112, second paragraph rejection of claim 36 has been withdrawn in view of the cancellation of claim 36.

### ***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
8. Claims 1-35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding independent claim 1, it appears paradoxical since the claim recites to enable a user to selectively access a “predetermined dynamic folder” (line 11). Predetermined refers to something determined in advance whereas dynamic refers to something determined or known at the time of request.

Independent claims 16, 26 and 31 are rejected under the same issue.

Dependent claims 2-15, 17-25, 27-30, 32-35 are also rejected due to the dependency to their base claims 1, 16, 26, and 31.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 2178

11. Claims 1-16, 26-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art AAPA (specification, [0003]-[0018]) in view of Segal et al. (US 2003/0126165, 7/3/03, priority 8/27/01).

Regarding independent claim 1, AAPA discloses:

- registering a plurality of design-time folder group definitions for defining a plurality of dynamic folders ([0006]: a criteria is defined for each design-time folder to describe which documents are associated with the folder for defining dynamic folders in the conventional dynamic foldering systems)
- registering a plurality of variable binding expressions for assigning a plurality of documents to a plurality of dynamic folders within the dynamic folder hierarchy ([0006]: when during run-time a corresponding dynamic folder is accessed via query or path navigation, a collection of documents is evaluated against the defined criteria; if the documents in the collection satisfy the defined criteria, these documents appears as members of the folder; this shows that the defined criteria is the binding expression for assigning a plurality of documents to a plurality of dynamic folders within the dynamic folder hierarchy)
- translating a plurality of queries to identify a path for retrieving a set of documents associated with a folder within a dynamic folder hierarchy ([0006]: the fact that during run-time a corresponding dynamic folder is accessed via *query or path navigation*, and then the collection of documents that are *satisfied the criteria defined for design-time folder to describe which documents being*

*associated with the folder shows that the path that leads to the folder of documents satisfied the defined criteria is identified when a plurality of queries is made; in other words, translating of queries is performed for identifying the path to retrieve documents associated with the folder)*

AAPA does not disclose:

- dynamically tailoring foldering criteria at the time of use, to enable a user to selectively access a predetermined dynamic folder
- wherein the set of documents comprises metadata and content in a hierarchical form

Segal discloses:

- dynamically tailoring foldering criteria at the time of use, to enable a user to selectively access a predetermined dynamic folder ([0016]-[0017], [0025]: defining the search criteria for detecting the context of the expression that matches with a folder and thus accessing a specific folder implies that the folder criteria is defined at the time of searching to enable a user to selectively access a predetermined folder)
- wherein the set of documents comprises metadata and content in a hierarchical form ([0058]: each folder in the directory is associated with a label and a definition which are metadata of the folder, and thus, the metadata and content of documents in the folders are in a hierarchical form)

It would have been obvious to an ordinary skill at the time of the invention was made to have combined Segal into AAPA since Segal teaches dynamically tailoring foldering

Art Unit: 2178

criteria at the time of use to enable a user to access a predetermined folder and having the metadata and content of the folders in a hierarchical form thus providing the advantage to incorporate into AAPA for creating a plurality of dynamic folder hierarchies with specified criteria matched with the folders in the hierarchies that allows a user to access to any folder predetermined in the hierarchies at the request time.

Regarding claim 2, which is dependent on claim 1, AAPA discloses that at least some of the design-time folder group definitions are predetermined by a user ([0011]-[0012]: the creation of folders with a predefined time shows that the group definitions of the folders are predetermined by a user).

Regarding claim 3, which is dependent on claim 1, AAPA discloses that at least some of the variable binding expressions are predetermined by a user ([0007]: returning only documents that are stored in folders in the hierarchy where the folder is created by defining and saving a search by a user shows that the criteria, which is equivalent to the binding expression, where the search meets the content of a folder, is predetermined by a user).

Regarding claim 4, which is dependent on claim 1, AAPA discloses that at least some of the design-time folder group hierarchies comprise at least some of the design-time folder group definitions ([0010]-[0012]: the folder creation is specific at a certain time).

Regarding claim 5, which is dependent on claim 1, AAPA discloses that at least some of the dynamic folder hierarchies comprise at least some of the dynamic folders ([0003]-[0004]).

Regarding claim 6, which is dependent on claim 1, AAPA discloses that at least some of the dynamic folders comprise at least some of the documents ([0006]).

Regarding claim 7, which is dependent on claim 1, AAPA discloses that the set of documents comprise any one or more of structured, semi-structured, and non-structured data ([0003]-[0018]: the set of documents in a folder hierarchy can be either structured or non-structured data).

Regarding claim 8, which is dependent on claim 1, AAPA discloses that the set of documents comprises an item ([0003]-[0006]: the set of documents since includes at least one document, comprises an item).

Regarding claim 9, which is dependent on claim 1, AAPA does not disclose that the set of documents comprises an object graph.

Regarding claim 10, which is dependent on claim 1, AAPA discloses that the set of documents comprises metadata or content in the form of XML ([0018]).

Regarding claim 11, which is dependent on claim 1, AAPA discloses that the set of documents comprises content in the form of XML ([0018]).

Regarding claim 12, which is dependent on claim 1, AAPA discloses that identifying the dynamic folders that contain the set of documents ([0006]).

Regarding claim 13, which is dependent on claim 1, AAPA discloses that translating the plurality of queries comprise following a plurality of paths to locate the set of documents ([0006]-[0007]): providing a collection of documents that satisfies a criteria via a query implies that the query is translated wherein the path to said collection of documents in the folder hierarchy are located).

Regarding claim 14, which is dependent on claim 13, AAPA discloses combining the set of documents using a set operation ([0007]).

Regarding claim 15, which is dependent on claim 1, AAPA does not disclose explicitly performing parallel navigation to documents along additional paths in a dynamic folder hierarchy.

However, AAPA does disclose that via path navigation, a collection of documents is evaluated against the defined criteria and those documents in the document collection that satisfy the criteria of the dynamic folder appear as members of the folder ([0006]). It is noted that the criteria is the restriction contained in a query for setting a condition

Art Unit: 2178

for matching documents in the result where the condition can be either a single item or a combination of some items.

Therefore, it would have been obvious to an ordinary skill in the art at the time of the invention was made to have modified AAPA to include performing parallel navigation to documents along additional paths a dynamic folder hierarchy for searching a combination of some items at the same time for a query where the criteria is a combination of some items. The combination of this feature to AAPA would expand the search for a criterion which is a combination of restrictions.

Regarding independent claim 16, AAPA discloses:

- identifying a collection of data as input data for which the dynamic folder hierarchy may be created ([0006])
- specifying a design-time folder group and a set of variable binding expressions from which the dynamic folder hierarchy is created ([0006])
- invoking a dynamic folder hierarchy utility program wherein the collection of data, the design-time folder group, and the set of variable binding expressions are made available to the dynamic folder hierarchy utility program ([0006])
- receiving one or more sets of documents in response to specified document viewing criteria ([0006]: the fact that via a query or path navigation, a collection of documents is evaluated against the defined criteria and the documents in the collection of documents that satisfy the criteria of the dynamic folder appear as members of the folder shows that the collection of documents, which is one set of

Art Unit: 2178

documents, in response to specified document viewing criteria is received as a result of the query)

AAPA does not disclose:

- dynamically tailoring foldering criteria at the time of use, to enable a user to selectively access a predetermined dynamic folder
- wherein the set of documents comprises metadata and content in a hierarchical form

Segal discloses:

- dynamically tailoring foldering criteria at the time of use, to enable a user to selectively access a predetermined dynamic folder ([0016]-[0017], [0025]: defining the search criteria for detecting the context of the expression that matches with a folder and thus accessing a specific folder implies that the folder criteria is defined at the time of searching to enable a user to selectively access a predetermined folder)
- wherein the set of documents comprises metadata and content in a hierarchical form ([0058]: each folder in the directory is associated with a label and a definition which are metadata of the folder, and thus, the metadata and content of documents in the folders are in a hierarchical form)

It would have been obvious to an ordinary skill at the time of the invention was made to have combined Segal into AAPA since Segal teaches dynamically tailoring foldering criteria at the time of use to enable a user to access a predetermined folder and having the metadata and content of the folders in a hierarchical form thus providing the

advantage to incorporate into AAPA for creating a plurality of dynamic folder hierarchies with specified criteria matched with the folders in the hierarchies that allows a user to access to any folder predetermined in the hierarchies at the request time.

Claims 26-30 are for a system of method claims 1-5, and are rejected under the same rationale.

Claims 31-35 are for a computer program product of method claims 1-5, and are rejected under the same rationale.

12. Claims 1-8, 12-15, 26-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Long et al. (US 2003/0200197, 10/23/03, filed 5/30/03) in view of Segal et al. (US 2003/0126165, 7/3/03, priority 8/27/01).

Regarding independent claim 1, Long discloses:

- registering a plurality of design-time folder group definitions for defining a plurality of dynamic folders ([0006]: the meaning assigned to the folders shows the definitions of the folders)
- registering a plurality of variable binding expressions for assigning a plurality of documents to a plurality of dynamic folders within the dynamic folder hierarchy ([0006]: the intuitive relationship between the content of the document and the meaning assigned to the folder in which the content is stored implies a binding for assigning a plurality of documents to a plurality of dynamic folders within the

Art Unit: 2178

dynamic folder hierarchy; [0189], [0190]: the ID for each folder is a binding

expression for assigning a plurality of documents to a plurality of folders)

- translating a plurality of queries to identify a path for retrieving a set of documents associated with a folder within a dynamic folder hierarchy ([0186]-[0190]: retrieving documents associated with folder path via querying the database of folder hierarchy implies that translating the queries to identify a path for retrieving documents is performed)

Long does not disclose:

- dynamically tailoring foldering criteria at the time of use, to enable a user to selectively access a predetermined dynamic folder
- wherein the set of documents comprises metadata and content in a hierarchical form

Segal discloses:

- dynamically tailoring foldering criteria at the time of use, to enable a user to selectively access a predetermined dynamic folder ([0016]-[0017], [0025]: defining the search criteria for detecting the context of the expression that matches with a folder and thus accessing a specific folder implies that the folder criteria is defined at the time of searching to enable a user to selectively access a predetermined folder)
- wherein the set of documents comprises metadata and content in a hierarchical form ([0058]: each folder in the directory is associated with a label and a

Art Unit: 2178

definition which are metadata of the folder, and thus, the metadata and content of documents in the folders are in a hierarchical form)

It would have been obvious to an ordinary skill at the time of the invention was made to have combined Segal into Long since Segal teaches dynamically tailoring foldering criteria at the time of use to enable a user to access a predetermined folder and having the metadata and content of the folders in a hierarchical form thus providing the advantage to incorporate into Long for creating a plurality of dynamic folder hierarchies with specified criteria matched with the folders in the hierarchies that allows a user to access to any folder predetermined in the hierarchies at the request time.

Regarding claim 2, which is dependent on claim 1, Long discloses that at least some of the design-time folder group definitions are predetermined by a user ([0006]: the meaning of each folder is known named by the user who creates the folder).

Regarding claim 3, which is dependent on claim 1, Long discloses that at least some of the variable binding expressions are predetermined by a user ([0189], [0190]: the folder ID is of course named by the user who creates the folder).

Regarding claim 4, which is dependent on claim 1, Long discloses that at least some of the design-time folder group hierarchies comprise at least some of the design-time folder group definitions ([0005]-[0006]: meanings are assigned to folders in the hierarchy).

Regarding claim 5, which is dependent on claim 1, Long discloses that at least some of the dynamic folder hierarchies comprise at least some of the dynamic folders ([0005], [0006]).

Regarding claim 6, which is dependent on claim 1, Long discloses that at least some of the dynamic folders comprise at least some of the documents ([0006]).

Regarding claim 7, which is dependent on claim 1, Long discloses that the set of documents comprise any one or more of structured, semi-structured, and non-structured data ([0190]: documents are known defined as a file containing data of at least in structured or semi-structured).

Regarding claim 8, which is dependent on claim 1, Long discloses that the set of documents comprises an item ([0193]: each folder includes at least a document, which is an item).

Regarding claim 12, which is dependent on claim 1, Long discloses identifying the dynamic folders that contain the set of documents ([0190]: retrieving documents associated with the folder path shows that identifying documents in folders accessed by the folder paths).

Regarding claim 13, which is dependent on claim 1, Long discloses that translating the plurality of queries comprise following a plurality of paths to locate the set of documents ([0189]-[0190]).

Regarding claim 14, which is dependent on claim 13, Long does not disclose combining the set of documents using a set operation.

However, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to have modified Long to include combining the set of documents using a set operation since the query can include one criterion or a combination of criteria. Thus, in case of the combination of criteria, a search in multiple paths should be performed on the set of documents using a set operations.

Regarding claim 15, which is dependent on claim 1, Long does not disclose explicitly performing parallel navigation to documents along additional paths in a dynamic folder hierarchy.

However, Long does disclose retrieving documents that match a query by searching a folder path ([0189]-[0190]).

Therefore, it would have been obvious to an ordinary skill in the art at the time of the invention was made to have modified Long to include performing parallel navigation to documents along additional paths in a dynamic folder hierarchy for searching a combination of some items at the same time for a query where the criteria is a combination of some items.

Claims 26-30 are for a system of method claims 1-5, and are rejected under the same rationale.

Claims 31-35 are for a computer program product of method claims 1-5, and are rejected under the same rationale.

13. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peltonen et al. (US 5,890,147, 3/30/99, filed 3/7/97) in view of Segal et al. (US 2003/0126165, 7/3/03, priority 8/27/01).

Regarding independent claim 16, Peltonen discloses:

- identifying a collection of data as input data for which the dynamic folder hierarchy may be created (col 6, lines 10-34: the uniqueness assigned to each folder by the search engine shows that documents in the folder, which is a collection of data is identified)
- specifying a design-time folder group and a set of variable binding expressions from which the dynamic folder hierarchy is created (col 6, lines 10-34: the IDs for the folders in hierarchy is a set of variable binding expressions assigned for the folders)
- invoking a dynamic folder hierarchy utility program wherein the collection of data, the design-time folder group, and the set of variable binding expressions are made available to the dynamic folder hierarchy utility program (col 2, lines 40-62, col 6, lines 10-61: the group of folders, the Ids of folders where the requested

Art Unit: 2178

documents are located according to the invention shows that there is a program to carry out these functions)

- receiving one or more sets of documents in response to specified document viewing criteria (col 2, lines 40-62, col 6, line 62 to col 8, line 56)

Peltonen does not disclose:

- dynamically tailoring foldering criteria at the time of use, to enable a user to selectively access a predetermined dynamic folder
- wherein the set of documents comprises metadata and content in a hierarchical form

Segal discloses:

- dynamically tailoring foldering criteria at the time of use, to enable a user to selectively access a predetermined dynamic folder ([0016]-[0017], [0025]: defining the search criteria for detecting the context of the expression that matches with a folder and thus accessing a specific folder implies that the folder criteria is defined at the time of searching to enable a user to selectively access a predetermined folder)
- wherein the set of documents comprises metadata and content in a hierarchical form ([0058]: each folder in the directory is associated with a label and a definition which are metadata of the folder, and thus, the metadata and content of documents in the folders are in a hierarchical form)

It would have been obvious to an ordinary skill at the time of the invention was made to have combined Segal into Peltonen since Segal teaches dynamically tailoring foldering

criteria at the time of use to enable a user to access a predetermined folder and having the metadata and content of the folders in a hierarchical form thus providing the advantage to incorporate into Peltonen for creating a plurality of dynamic folder hierarchies with specified criteria matched with the folders in the hierarchies that allows a user to access to any folder predetermined in the hierarchies at the request time.

14. Claims 17-18, 20, 22, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Segal as applied to claim 16 above, and further in view of Reddy et al. (US 2003/0084424, 5/1/03, filed 1/20/02).

Regarding claim 17, which is dependent on claim 16, AAPA does not disclose defining a dynamic folder hierarchy on an object graph based on object relationship and object content.

Reddy discloses defining a dynamic folder hierarchy on an object graph based on object relationship and object content (abstract, [0011], [0015]: using an object association graph as a model template for defining the nodes and node paths of element hierarchy). It would have been obvious to an ordinary skill in the art at the time of the invention was made to have combined Reddy into AAPA for using an object graph to define a folder hierarchy since the folder hierarchy is also an element hierarchy in Reddy where each element in the hierarchy is a folder. Using an object graph to define a folder hierarchy would illustrate the relationship among the objects in the hierarchy and would make it easy to see the relationship among these objects.

Regarding claim 18, which is dependent on claim 17, AAPA does not disclose supporting an external parameter binding in a definition of the dynamic folder hierarchy on the object graph. Instead, AAPA discloses an external parameter binding in a definition of the dynamic folder hierarchy ([0005], [0006]: predefined criteria is an external parameter binding in the definition of the dynamic folder hierarchy).

Reddy discloses using an object association graph as a model template for defining the nodes and node paths of element hierarch (abstract, [0011], [0015]).

It would have been obvious to an ordinary skill in the art at the time of the invention was made to have combined Reddy into AAPA for supporting an external parameter binding in a definition of the dynamic folder hierarchy on the object graph since the folder hierarchy is analogous to an element hierarchy in Reddy where each element in the hierarchy is a folder. Using such an object graph to support an external parameter binding in a definition of the dynamic folder hierarchy on the object graph would illustrate the relationship among the objects in the hierarchy and would make it easy to retrieve an object according to the parameter binding.

Regarding claim 20, which is dependent on claim 17, AAPA discloses identifying objects in a particular dynamic folder ([0006]).

Regarding claim 22, which is dependent on claim 17, Eder discloses identifying dynamic folders that contain a particular object ([0006]: a document in the collection in the folder that matches the criteria is a particular object).

Regarding claim 24, AAPA and Reddy do not disclose combining results of multiple paths using set operations.

However, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to have modified AAPA and Reddy to incorporate combining results of multiple paths using set operations since it was well known that a query can include either one criterion or a combination of criteria. Therefore, in the case of a combination of criteria, searching data in multiple paths in the folder hierarchy should be performed using set operations.

15. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peltonen and Segal as applied to claim 16 above, and further in view of Reddy et al. (US 2003/0084424, 5/1/03, filed 1/20/02).

Regarding claim 17, which is dependent on claim 16, Peltonen and Segal do not disclose defining a dynamic folder hierarchy on an object graph based on object relationship and object content.

Reddy discloses defining a dynamic folder hierarchy on an object graph based on object relationship and object content (abstract, [0011], [0015]: using an object association graph as a model template for defining the nodes and node paths of element hierarchy). It would have been obvious to an ordinary skill in the art at the time of the invention was made to have combined Reddy into Peltenon for using an object graph to define a folder hierarchy since the folder hierarchy is also an element hierarchy in Reddy where each

Art Unit: 2178

element in the hierarchy is a folder. Using an object graph to define a folder hierarchy would illustrate the relationship among the objects in the hierarchy and would make it easy to see the relationship among these objects.

Regarding claim 18, which is dependent on claim 17, Peltenon does not disclose supporting an external parameter binding in a definition of the dynamic folder hierarchy on the object graph.

Reddy discloses using an object association graph as a model template for defining the nodes and node paths of element hierarch (abstract, [0011], [0015]).

It would have been obvious to an ordinary skill in the art at the time of the invention was made to have combined Reddy into Peltenon for supporting an external parameter binding in a definition of the dynamic folder hierarchy on the object graph since the folder hierarchy is analogous to an element hierarchy in Reddy where each element in the hierarchy is a folder. Using such an object graph to support an external parameter binding in a definition of the dynamic folder hierarchy on the object graph would illustrate the relationship among the objects in the hierarchy and would make it easy to retrieve an object according to the parameter binding.

16. Claims 19, 21, 23, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Segal as applied to claim 16 above, and further in view of Shin et al. (US 2003/0212662).

Regarding claim 19, which is dependent on claim 18 , AAPA discloses supporting the external parameter binding is implemented by an external parameter binding but does not disclose such a supporting is implemented in XQuery.

Shin discloses a retrieval expression based on the characteristic of XML data can be expressed in a regular expression query, for example, in XQuery ([0010], [0042]).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined Shin into AAPA since the retrieval expression expressed in XQuery is parameter binding for retrieving documents matching the query.. The combination of Shin into AAPA would provide a way to implement parameter binding in the query in XML for XML documents for greater performance of query processing.

Regarding claim 21, which is dependent on claim 20 , AAPA does not disclose identifying the objects is implemented by generating an XQuery query.

Shin discloses identifying the objects is implemented by generating an XQuery query ([0010], [0042]).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined Shin into AAPA since generating XQuery query via regular path expression query in Shine would make a greater performance of query processing on XML documents in AAPA.

Regarding claim 23, which is dependent on claim 22, AAPA discloses identifying the dynamic folders but does not disclose that such identifying is implemented by generating an XQuery query.

Shin discloses identifying dynamic folders via different paths in XML structure is implemented by generating an XQuery query ([0010], [0042]).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined Shin into AAPA since identifying regular path expression query in XML data in Shine would make a greater performance of query processing on XML documents in AAPA.

Regarding claim 25, which is dependent on claim 24, AAPA discloses and suggests combining results of multiple paths is implemented by generating a query but does not disclose such combining is implemented in an optimized XQuery query.

Shin discloses identifying dynamic folders via different paths in XML structure is implemented by generating an XQuery query ([0010], [0042]).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined Shin into AAPA since identifying regular path expression query in XML data in Shine would make a greater performance of query processing on XML documents in AAPA.

#### ***Response to Arguments***

17. Applicant's arguments with respect to claims 1-35 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Segal et al. (US 2003/0041072).

Moody et al. (US 2003/0177190).

Segal et al. (US 2006/0064427).

Stauder et al. (US 2006/0218509).

Gould (US 2007/0061416).

Art Unit: 2178

Marsden, Improving the Usability of the Hierarchical File System, ACM 2003, pages 122-129.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cong-Lac Huynh whose telephone number is 571-272-4125. The examiner can normally be reached on Mon-Thurs (9:00-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on 571-272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Cong-Lac Huynh*  
Cong-Lac Huynh  
Primary Examiner  
Art Unit 2178  
7/3/07